

REMARKS

This Application has been carefully reviewed in light of the Final Office Action mailed September 22, 2008 and the Advisory Action mailed January 5, 2009. Claims 1-8, 10-12, 14-20 and 23-24 are pending in this Application, all of which stand rejected. Claims 1, 4, and 12 are herein amended. Claims 9, 13, 21-22 and 25 were previously cancelled without prejudice or disclaimer. Applicant respectfully requests reconsideration and favorable action in this case.

Rejections under 35 U.S.C. §§ 101 and 112 were overcome (see Advisory Action)

Claims 12, 14-20 and 24 were rejected under 35 U.S.C. §101 and 35 U.S.C. §112, first paragraph. Applicant addressed these rejections in the Response to Final Office Action dated November 19, 2008, and the Examiner subsequently indicated in the Advisory Action that these rejections were overcome. Thus, Applicant assumes there are currently no remaining rejections under 35 U.S.C. §101 or 35 U.S.C. §112. Applicant requests that the Examiner indicate if this assumption is incorrect.

Rejections under 35 U.S.C. §103

Claims 1-8, 10-12, 14-20 and 23-24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,549,977 to Horst et al. ("*Horst*") in view of U.S. Patent Application Publication No. 2002/0138670 to Johnson ("*Johnson*") further in view of U.S. Patent Application Publication No. 2002/0188801 by Green ("*Green*").

Applicant submits that *Horst*, *Johnson*, and *Green*, alone or in combination, do not teach all elements of Applicant's claims. For example, amended Claim 1 recites in part:

if the particular intercepted I/O operation is identified as a write operation to a data portion of a disk RAID volume, returning a success status to the requesting application without forwarding the write operation for processing or caching the write operation, such that the write operation is neither completed nor written to disk; (emphasis added)

The Examiner acknowledges that *Horst* in view of *Johnson* does not teach ***returning a success status*** for a write operation ***without caching*** the write operation, but alleges that

Green, paragraph 0032 does teach this feature. (See Final Office Action, pages 9-10; and Advisory Action). However, Applicant maintains its previously presented position that *Green* does not teach returning a success status for a write operation *without caching* the write operation. (May 12, 2008 Response to Office Action, pages 8-10).

The issue centers around the disputed interpretation of paragraph 0032 of *Green*, which states:

[0032] As such, several caching levels may be disposed between the computer system 100' and the persistent memory system 120. Typically each write operation must be acknowledged and if a data write is lost or incomplete, the computer system may retransmit the write request. Acknowledgments from a caching systems can be performed to enhance performance since the persistent memory system is typically much slower than the caching system 110. As noted, acknowledgment of a write request 150 from the highest level sub-caching system 270-N offers better performance but less reliability in the case of a system or media failure. Acknowledgment of a write request 150 from a lower level sub-caching system 270-2 offers poorer performance but greater reliability. Acknowledgment of a write request 150 from the persistent memory system 120 offers the poorest performance but the highest reliability. Consequently, a tradeoff between performance and reliability is performed, preferably dynamically, in selecting the origin of the acknowledgment. (emphasis added)

Note that the underlined sentence is *the only mention* of lost or incomplete data writes in the entire *Green* document. Thus, the disagreement comes down to the interpretation of the single sentence “Typically each write operation must be acknowledged and if a data write is lost or incomplete, the computer system may retransmit the write request.”

Applicants maintain that the sentence is certainly ambiguous.

According to a first interpretation of the sentence, a data write operation may be lost or incomplete *after* being cached in the multi-level caching system. Under such interpretation, it is unclear whether the “acknowledgement” from the caching system is an acknowledgement of receipt of the data write operation at the caching system, or an acknowledgement that the data write operation was lost or incomplete. Either way, this cannot be interpreted as *returning a success status* for a write operation *without caching* the write operation.

According to a second interpretation of the sentence -- the interpretation insisted upon by the Examiner (*see* Advisory Action) -- *all* write operations, whether completed, lost, or incomplete, are acknowledged as successful. If the system then identifies a particular write operation as lost or incomplete, it must re-transmit the particular write.

According to a third interpretation of the sentence, data write operations are only acknowledged once they are cached or completed. Write operations that are lost or incomplete are not acknowledged, and thus must be retransmitted in order to be cached or completed and then acknowledged. There is no acknowledgement of lost or incomplete data writes that are not cached.

Applicant believe that the third interpretation is the most reasonable. There is nothing else anywhere of *Green* that would suggest that a lost or incomplete data write would be acknowledged as successful. If the patentee intended to disclose a system in which lost or incomplete write operations are acknowledged as successful, surely the patentee would have stated this explicitly, or at least mentioned it somewhere else in the patent. Moreover, this third interpretation of the sentence is supported by the claims of *Green*. For example, Claim 8 of *Green* recites a method in which “a successful data write request is signaled to said computer system by an acknowledgment signal.” The claim recites, in part:

[a] caching system being state-configurable to include:

- a write-through-buffer-noack state in which said data is buffered, without generating a cache acknowledgment signal; and
- a buffer-ack state in which said data is buffered and said cache acknowledgment signal (C-ACK) is generated to acknowledge buffering of said data;

...

[a] persistent memory system being state-configurable to include:

- a memory-ack state in which said data is stored and a memory acknowledgment signal (M-ACK) is generated to acknowledge storing of said data, and
- a memory-noack state in which said data is stored without generating said memory acknowledgment signal;

In other words, Claim 8 teaches the configurations of buffering data *without* generating an acknowledgment signal, buffering data *and* generating an acknowledgment signal, storing data *without* generating an acknowledgment signal, and storing data *and* generating an acknowledgment signal. There is no configuration in which an acknowledgment signal is generated without either buffering or storing the data.

Thus, based at least on these multiple reasons, Applicant believe that the third interpretation is the most reasonable, and would be adopted by one of ordinary skill in the art reading the entirety of *Green*. As discussed in previous Responses, this third interpretation does not meet Applicant's claimed feature of returning a success status for a write operation *without caching* the write operation.

Moreover, even if this third interpretation of the sentence was not the meaning intended by the patentee, the sentence is indisputably ambiguous. "It is well established that an anticipation rejection cannot be predicated on an ambiguous reference. . . . Statements in a prior application relied on to prove anticipation must be so clear and explicit those skilled in the art explicit have no difficulty in ascertaining their meaning." Application of Turlay, 304 F.2d 893, 896 (C.C.P.A. 1962) (citations omitted); and Ex Parte George Mallebrein, 2006 WL 1665470, *3 (Bd.Pat.App. & Interf. Feb 07, 2006). Accordingly, it is improper to use *Green* to anticipate the features of Applicant's claims alleged by the Examiner.

For at least these reasons, Applicant's claims as previously presented are allowable over the cited references. However, Applicant has also amended the claims to even further distinguish the pending claims over the cited references. For example, Claim 1 has been amended to recite "... returning a success status to the requesting application without forwarding the write operation for processing or caching the write operation, such that the write operation is neither completed nor written to disk nor re-transmitted." Independent Claims 4 and 12 were similarly amended. Thus, regardless of the interpretation of *Green*, *Green* does not teach this feature.

For at least these reasons, amended independent Claims 1, 4, and 12 are allowable over the proposed combination of *Horst*, *Johnson*, and *Green*. Thus, Applicant respectfully requests reconsideration and allowance of amended Claims 1, 4, and 12, as well as all claims that depend therefrom.

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CONCLUSION

Applicant has made an earnest effort to place this case in condition for allowance in light of the amendments and remarks set forth above. Applicant respectfully requests reconsideration of the pending claims.

Applicants respectfully submit a Request for Continued Examination (RCE) Transmittal and a Petition for Two Months Extension of Time. The Commissioner is authorized to charge \$810.00 (RCE) and \$490.00 (Two Month Extension of Time) to Deposit Account 50-2148 in order to effectuate this RCE filing.

Applicant believes there are no other fees due at this time. However, the Commissioner is hereby authorized to charge any fees necessary or credit any overpayment to Deposit Account No. 50-2148 of Baker Botts L.L.P.

If there are any matters concerning this Application that may be cleared up in a telephone conversation, please contact Applicant's attorney at 512.322.2689.

Respectfully submitted,
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